Record Keeping Gets Easier, Faster

Document management software gives firms increased security, precision, and client confidence.

BY JANE BYRNE

The reality of document storage is that filing cabinets take up space. A lot of space. Searching through them is no picnic, either. Document management software, on the other hand, allows professionals to quickly search through hundreds of project files for a specific piece of information with the click of a button.

More and more, engineering firms are using automated document storage and management systems to maintain their files and records. Anything from internal documents to project drawings and specs to client communications can be stored electronically and accessed with computers by limitless employees in a company. Engineers in distant locations collaborating on a project can access relevant files using document management systems, making coworkers in Texas and Vermont feel like they're working together in the same room.

Many engineers are hesitant to change the way they've always done things, and this is often true for file storage methods, says Todd Hays, president of ACS Software. What finally convinces them to make the move to automated file storage, he adds, is the fact that their companies grow larger, which means more files and more people working with those files.

ACS is the developer of AutoEDMS, a document management and workflow solution designed for workgroups and multi-site enterprises. ACS has thousands of customers worldwide, in a wide variety of industries. Many of those clients are engineering firms, Hays says.

"Often times, their customers require them to show proof of better management," he says. This can create a need for more organized, electronic file storage.

Other times, an engineering firm will take on a project that requires two or more of their offices to work on a project together. "Their old procedures for managing their files will no longer be effective because now they have two different sites working with the files, so they can't just rely on one guy tapping the other guy on the shoulder and asking where the file is," Hays says. "The coordination of their work sharing drives them to doing something about their file management."

AutoEDMS keeps track of who does what on a project as different employees work together, he says. "That work process is something that AutoEDMS will automate and track and manage—basically how those files get routed between people." The software records who managed and approved different aspects of a single project.

It also acts as a library that keeps track of files and file revisions throughout and after the lifecycle of a project, and organizes documents by project. Engineers working on a project can use the software to quickly assess which documents are the most current and which are older versions, in case they need to go back in the project

timeline to look at something that was done in the past, Hays says.

Another important function of AutoEDMS is keeping track of transmittals. If an engineer sends a batch of documents to a client or another person working on the job, the software records and automates that transmission of information. This can be very helpful for record keeping, Hays says.

One ACS client, a large, multinational firm based out of Michigan that designs and manufactures robotic and paint application systems for the automotive industry, tells Hays that before automating their document management, the company had someone

To a large extent, the AutoEDMS software gets customized for each firm that uses it. Most firms don't want to change their work processes, and they don't have to, Hays says. Going from manual to automated record keeping is a change in itself, and everyone isn't going to welcome it with open arms, he says. So the systems are typically heavily configured for each company's needs, but that process is not expensive nor time consuming, Hays adds. "It's never an out-of-the-box system because everyone wants to use it 'their' way."

"In general, there are a lot of organizations and companies that would benefit

> **It tracks all drawing statuses and keeps a revision history—literally allows us to control the flow of our individual drawings or files.**

come into the office every weekend to sort through files. That person had to figure out which documents were most current, burn a CD of those files, and type up a report listing all of the documents that were being sent to clients. That report had to include names, dates, descriptions, and other information in a spreadsheet.

"This was a substantial task, and obviously open to a lot of error," Hays says.

After the company implemented the software and automated this task, things got much easier. A transmittal document for a group of files could be created instantly by the software program. It created a spreadsheet that listed all documents, such as drawings, that were being sent to clients, along with dates and other relevant information. This saved the company time and money, and the firm was no longer worried about the risk of human error, Hays says.

The fact is that companies need to get automated in order to get organized, Hays asserts. "Getting things into the automated fashion, I don't care what [brand] they use, just the idea that they need to use something other than their old, manual methods."

from this type of automation, but they're hesitant because fundamentally they're just scared of a change, or they don't initially see a benefit or reason to automate," Hays says. However, he feels that once a company starts to use document management software, they will be happy with the change.

Rich Broome, vice president of engineering services for the St. Louis-based Stupp Bridge Company, says that the American Institute of Steel Construction took interest in his company's use of AutoEDMS as an organizational tool during an audit of the firm's services earlier this year.

"They were impressed with our ability to keep records through EDMS," Broome says. AISC's categorization of fabrication companies like Stupp Bridge is important because it tells potential clients how qualified each company is for various types of work.

Stupp Bridge Company uses AutoEDMS in lieu of manual record keeping because it is faster and easier, says Rodney Crowley, the company's information systems go-to guy. "It tracks all drawing statuses and keeps a revision history—literally allows
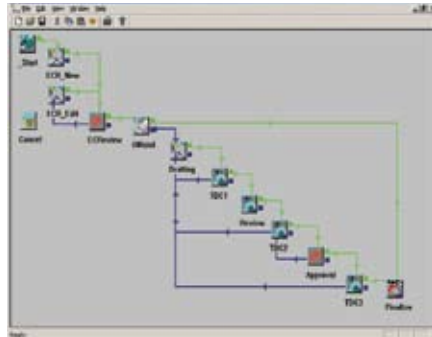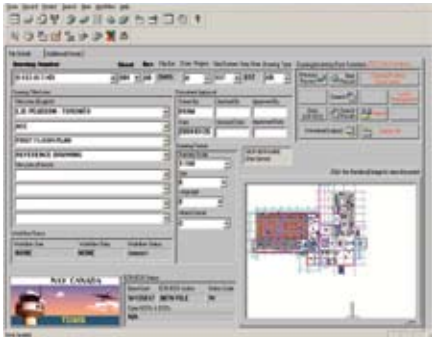
AutoEDMS HELPS FIRMS KEEP TRACK OF TRANSMITTALS AND OTHER WORKFLOW DOCUMENTS.

us to control the flow of our individual drawings or files," Crowley says. Those can include TIFF image files, PDFs, and many other types of documents.

In addition, the company's drawings are created in St. Louis, several hundred miles from the company's fabrication facility in Bowling Green, Kentucky. "One of the things EDMS allows us to do is control the drawings that they see, when they see them, when they can use them. That really just wouldn't be possible without it," Crowley says.

The software allows for a lot of control of access to documents, which helps with security, he adds. With AutoEDMS, things don't fall through the cracks as often as they might otherwise, Broome says.

Sanctuary Software Studio, a software and online systems development firm based out of Akron, Ohio, custom-builds document management systems for firms, many of which are in the engineering, architectural, and construction industries. There are no limitations to the features their databases can have because they are tailored for each client, according to Patrick Robbins, business development manager of Sanctuary Software.

The custom design of document management software systems for clients eliminates waste and clutter by incorporating only those features that clients request into the software, Robbins says. One type of software the company develops for firms is a client relationship database, which keeps track of all

correspondence with a client throughout a project.

Sanctuary Software's document management systems create a searchable, central clearinghouse for documentation. "Just calling it searchable doesn't do it justice because is broadens past just the documentation," Robbins says.

"A key function that we put into what we called a 'knowledge database' for a client really created ... a Google-like function built within the system," he says. People don't have to know a lot about what they are searching for—just a few key words. That search function can help find documentation related to the project, individuals who were involved in it, and other pertinent information.

Also, the company often creates project database systems for firms that track projects from start to finish, so they can keep track of various aspects of projects, such as CAD drawings, he says.

"Specifically with engineering firms, there is so much documentation generated on a project-by-project basis that sometimes it's a little difficult to file it," Robbins says. Using his company's software, clients can file everything by project in their own specialized systems. Individuals working on a project can do a query by the general type of document that they're looking for, and do a cross-project search, which obviously cannot be done in a hard-copy filing system, he adds.

If an engineer needs to generate a new proposal document for a specific

type of project, he can search the system for projects of that nature in order to pull up personnel, project documentation, and other examples of aspects of a project. That helps to shorten the time it takes to adequately respond to a request for a proposal, Robbins says.

Recently, Sanctuary Software created a "Project Intranet and Knowledge Database" for Thorson Baker & Associates, a structural, mechanical, and electrical engineering firm located just outside of Cleveland, Ohio. The system will be used internally to provide the company's 76 employees with online access to the firm's projects, files, and materials.

The system will include tracking of marketing efforts and other internal projects, in addition to CAD drawings and other projects that are already underway, says Margaret Boswell, the firm's marketing coordinator.

"We have over 1,000 projects in a year. Some are very small with a very quick turnaround, and some are very large and are in the office for a long time, so we have quite a huge volume of…information to work with," Boswell says. The firm's employees work in the field nationwide. Thorson Baker anticipates that the new system, which has not yet been implemented, will allow its employees to access the company's files and project information from any location in the U.S. In addition, it should ease the process by which the engineers can work together on projects.

When Sanctuary Software created the system for Thorson Baker, its goals were to improve communications, simplify access, and encourage collaboration among staff in the company, Robbins says. Those are the basic goals of any automated document management system, he adds. **PE**

Committee Publishes Model Document Retention Policy

NSPE has established a model document retention policy for members and firms. The policy guidelines are based on an extensive survey that was conducted by the Professional Liability Committee of NSPE's Professional Engineers in Private Practice in 2003–2004.

Laws regarding document retention vary from state to state, which makes it difficult to establish a standard policy. In addition, factors such as the type of firm, client requirements and storage expenses must be considered when developing a document retention policy, the guidelines state.

In general, there are three reasons to retain documents: for future reference on similar projects, for expansion or modi-fication of the original project, and for reference if a claim is filed.

Charlotte Maddox, P.E., helped to lead the first phase of the project to develop the model policy. She feels that having a formal document retention policy is impor-tant to protect firms and employees from liability. In addition, if someone within the firm wants to build on past work, the firm's employees will have the necessary docu-ments to do that, Maddox says.

"If you formalize a plan, it forces orga-nizations to truly understand why they're keeping particular materials—if it's required by law that they keep them, if it's just for client retention—and it just gives a basis to all employees for understanding," she says.

The NSPE model policy offers sample guidelines about which individuals within companies should be responsible for retention of various types of records. Retention periods for various document types are also covered.

Drawings and specifications should be maintained in hard-copy format if possible, and electronic copies should also be maintained, the guidelines say. Also, all confidential documents should be shredded and recycled, and non-confi-dential documents should be recycled.

To download a copy of the model document retention policy, go to www.nspe.org/liability/in-home.asp.